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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

MI22-1940

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on _____

Signature _____

Typed or printed name _____

Application Number

10/087,558

Filed

February 28, 2002

First Named Inventor

Ross S. Dando

Art Unit

1763

Examiner

Rudy Zervigon

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

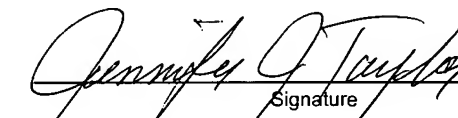
The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)☒ attorney or agent of record.
Registration number 48,711☐ attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____


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Telephone number

May 9, 2006

Date

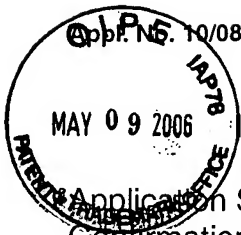
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 1 forms are submitted.

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EV850819333



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. 10/087,558
Confirmation No. 2179
Filing Date February 28, 2002
Inventor Ross S. Dando et al.
Assignee Micron Technology, Inc.
Group Art Unit 1763
Examiner Rudy Zervigon
Attorney's Docket No. MI22-1940
Customer No. 021567
Title: Manifold Assembly for Feeding Reactive Precursors to Substrate Processing Chambers

PRE-APPEAL BRIEF

Applicant requests review of the rejection of claims 14-17, 19-21, 31-32, 34 and 37-38 under 35 U.S.C. § 102 as being anticipated by Srivastava (U.S. Patent No. 6,225,745); and the rejection of claims 18, 33, 35-36 and 45-61 under 35 U.S.C. § 103 as being obvious over Srivastava in view of Onda (U.S. Patent No. 5,395,482).

Independent claims 14 and 31 and claims 15-17, 19-21, 32, 34 and 37-38 which depend correspondingly therefrom stand rejected over Srivastava. Independent claim 14 recites a manifold assembly comprising a body having a plenum chamber. Claim 14 further recites first and second precursor feed streams on the manifold body, precursor inlets, and a purge gas stream on the manifold body at an inlet which is upstream of the precursor inlets and angled relative to the precursor inlet such that a purge gas flowed through the purge gas inlets provides a venturi effect within the plenum chamber relative to the first and second precursor inlets. In the present and previous actions the Examiner contends that Srivastava discloses a plenum chamber indicating that such is "inherent to convey gases" (see e.g. page 2 of the action). As set forth in the applicant's previous responses (see applicant response of October 24, 2005 at page 12, lines 1-9) nothing in the Srivastava disclosure teaches a plenum chamber in support of the Examiner's contention. Nor has the Examiner provided support for the contention of inherency.

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Although the Examiner was repeatedly encouraged to review the Board of Patent Appeals and Interferences decision in Appeal Number 03-0877 which is directly on point to the present issue, such is not addressed in any of the Examiner's answering Actions. In maintaining the present rejection the Examiner sets forth at the bottom of page 21 a definition of "plenum" and indicates that the Srivastava disclosure of a pipe conveying gases inherently discloses a plenum chamber since such "is full of "matter"". However, the present claims do not recite "plenum" in isolation. Rather, the claims specifically recite a plenum chamber. As found by the Board of Patent Appeals and Interferences (Appeal Number 03-0877) mere disclosure of a channel in a reference was insufficient for defining such to include a plenum chamber where the Examiner failed to provide additional evidence. Accordingly, the Srivastava disclosure does not support the Examiner's rejection.

The Examiner further indicates that applicant's recited limitation of "precursor inlets"; "precursor gases", "purge gases", and "purge gas inlets" are being treated by the Examiner as intended uses rather than structural limitations and are therefore considered not to limit the scope of the claims. In the present and previous actions the Examiner repeatedly relies upon the Walter decision (*In re Walter* 618 F.2d at 769, 205 USPQ at 409 and MPEP § 2106). As set forth in applicant's previous responses (see the response of October 24, 2005 at pages 12-13) the Examiner's reading out of structural distinction is unfounded and rejection with reliance upon the Walter decision is improper.

With respect to the recited "venturi effect", the Examiner indicates that a venturi effect is inherent in the Srivastava disclosure and states that "the structure recited in the reference is substantially identical to that of the claims" (see present action at page 3). As set forth in applicant's previous responses (see October 24, 2005 response at page 13, for example) Srivastava not only fails to disclose or suggest a plenum chamber but also fails to disclose or

suggest the claim 14 recited configuration of precursor feed streams and purge gas streams in fluid communication with the plenum chamber. Accordingly, the Examiner's holding of inherency is entirely unfounded since there is an absolute lack of supporting basis in the relied upon reference.

Independent claim 31 recites a purge gas inlet into a plenum chamber which is upstream of plenum chamber precursor inlets. Claim 31 is not anticipated by Srivastava for at least reasons similar to those discussed with respect to independent claim 14. Claim 31 additionally recites a plenum chamber outlet opposing the purge gas inlets where the body comprising the plenum chamber has a structural configuration for mounting the second end of the plenum chamber to a substrate processing chamber. As set forth in applicant's October 24, 2005 response at page 13, line 21 through page 14, line 1, Srivastava fails to disclose or suggest the recited outlet.

Referring to independent claim 45, which stands rejected under 35 U.S.C. §103(a) as being unpatentable over a combination of Srivastava and Onda, such recites an elongate body comprising an elongate plenum chamber having a plurality of precursor inlets received along the longitudinal axis. Claim 45 further recites a purge gas inlet into the plenum chamber at a first longitudinal axis and which is upstream of all precursor inlets to the plenum chamber and recites that each of the precursor feed streams and purge gas streams comprise elongated segments joining with their respective inlets. As discussed above with respect to independent claims 14 and 31, Srivastava fails to disclose or suggest a plenum chamber. Nor does Srivastava disclose or suggest the recited configuration of precursor inlets and purge gas inlets with proper reading of the claims. Onda is indicated as being relied upon as disclosing a 3-way valve, however, the 3-way valve of Onda does not contribute toward suggesting the recited features of the plenum chamber or the configuration of inlets of claim 45.

Claim 45 additionally recites that the purge gas stream has an elongated segment which joins the purge gas inlet and is substantially aligned on the longitudinal axis of the plenum chamber.

This additional feature is not disclosed or suggested by Srivastava and Onda considered individually or in combination. Accordingly and as more fully set forth in applicant's response of October 24, 2005 at page 15, independent claim 45 is not rendered obvious by the combination of Srivastava and Onda.

Onda is further indicated as being relied upon for various features recited in dependent claims. However, as set forth above and as more fully set forth in applicant's previous response, the combination of Srivastava and Onda fails to disclose or suggest each and every element in any of claims 14, 31 and 45. Accordingly, dependent claims 15-21, 32-38 and 46-61 are allowable over Srivastava and Onda for at least the reason that they depend from allowable base claims 14, 31 and 45.

Since the Examiner's maintained rejections of claims 14-21, 31-38 and 45-61 are believed to be clearly erroneous, review of such maintained rejections is respectfully requested.

Respectfully submitted,

Dated:

May 9, 2006

By:

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